Before you Start!

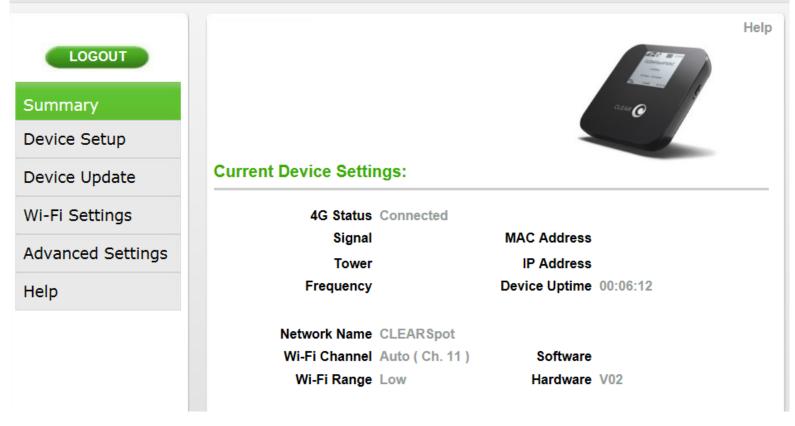
- Port forwarding works best when using Apple Safari, Microsoft Internet Explorer 8, or Mozilla Firefox.
 Google Chrome and Microsoft Internet Explorer 9 have been identified to have problems completing port forwarding.
- Please be aware that if any settings are changed outside of the directions outlined below and it renders the modem non-functional, you may be required to purchase another device at full retail price plus any other associated costs (shipping costs, taxes, etc.).
- Complete all necessary tasks that require an Internet connection. This includes any calls made using a VoIP service (phone service that requires Internet connection). This is because there are several steps in the process which may require a reboot of the modem, which will in turn either disconnect a phone call or interrupt Internet connectivity.
- Please note that by default the ability to login to the modem across the internet from a remote location is disabled.

How to setup Port Forwarding

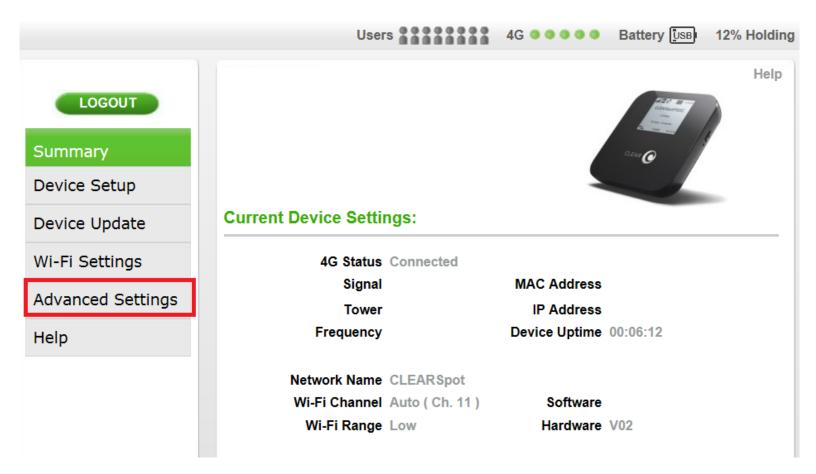
1. Open an internet browser and browse to the web address http://clearspot or 192.168.15.1. The password is "admin" (without the quotations).

Login Forgot Password?	Current Device Settings:		Help
	4G Status Conr	nected	
	Signal	MAC Address	
	Tower	IP Address	
	Frequency	Device Uptime	
	Network Name		
	Wi-Fi Channel	Software	
	Wi-Fi Range	Hardware	

2. The modem will default to the "Summary" page when the user interface opens.



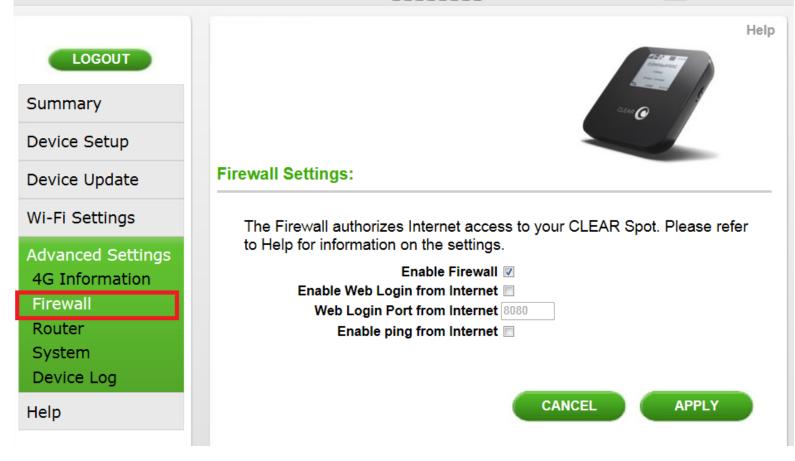
3. Select the "Advanced Settings" tab on the left side of the user interface.



4. The modem will default to the "4G Information" after selecting the "Advanced Settings" (as shown below).

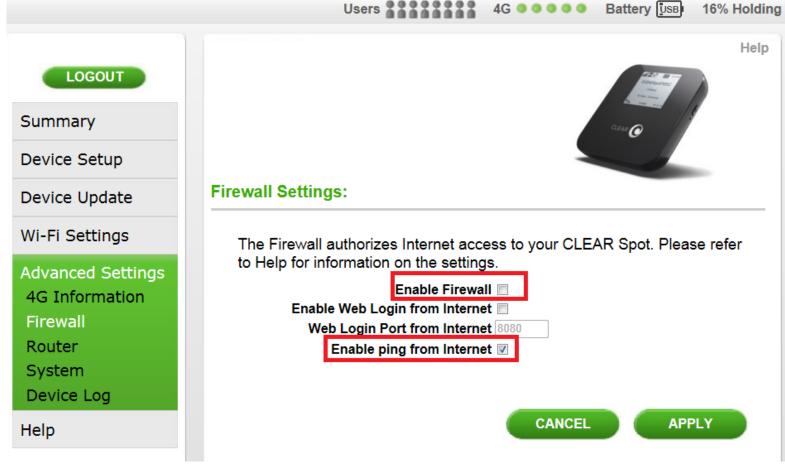
	Users	4G • • • • •	Battery USB	14% Holding
LOGOUT				Help
Summary			anno /	/
Device Setup		-		
Device Update	4G Information:			
Wi-Fi Settings	▼ Link Stats			
Advanced Settings	4G Status Connected			
4G Information	Frequency	Tower		
Firewall	NAP ID :	Preamble	1	
Router	CINR 37 dB		-38 dBm	
	CINR Ant 1 34 dB	RSSI Ant 1		
System	CINR Ant 2 34 dB	RSSI Ant 2	-41 dBm	
Device Log	TX Power -37 dBm	Tx Power Mean	-54 dBm	
Help	MAC Address	Device Uptime	00:09:45	
	IP Address	4G Connect Time	534 secs	

5. Select the "Firewall" tab on the left side of the user interface.



6. Uncheck the "Enable Firewall" checkbox and check the "Enable ping from Internet" checkbox.

• If you only need port forwarding for a gaming console or you do not need to be able to connect to devices behind the CLEAR Spot remotely, the "Enable ping from Internet" does <u>NOT</u> need to be selected.



7. Select "Router" under "Advanced Settings".

LOGOUT		Help
Summary	aeno	
Device Setup		
Device Update	Router Settings:	
Wi-Fi Settings	▼ Internet Protocol	ſ
Advanced Settings	Use these fields to configure a custom DNS Server.	
4G Information	Enable OpenDNS	
Firewall	OpenDNS Server1 208 . 67 . 222 . 222	
Router	OpenDNS Server2 208 . 67 . 220 . 220	
System	► Dynamic DNS	:
Device Log	 Universal PnP DMZ Host 	
Help	 Port Forwarding DHCP Server 	
RECONNECT	 DHCP Lease Reservation DHCP Lease Status 	

- 8. Select "DHCP Lease Status".
- Confirm the MAC and IP address of the device receiving the forwarded ports and copy them down for later use.
- DNS Servers
- Dynamic DNS Information
- ► UPnP
- ► DMZ
- Port Forwarding
- DHCP Server
- DHCP Lease Reservation
- DHCP Lease Status

Shows the devices currently connected to your modem.



9. Select the "DHCP Lease Reservation".

- DNS Servers
- Dynamic DNS Information
- ► UPnP
- ► DMZ
- Port Forwarding
- DHCP Server

DHCP Lease Reservation

Use these fields to reserve a specific IP address for a deivce.

Select	Host Name	e MAC Ad	dress	IP Address	Enabled		
			A				
DHCP Lease Status							
DHCF	P Lease S	tatus					
		tatus ces currently con	nected to your r	nodem.			
Show			nected to your r	nodem.	Duration		

- 10. Select the "Add" button.
 - DNS Servers
 - Dynamic DNS Information
 - ► UPnP
 - ► DMZ
 - Port Forwarding
 - DHCP Server
 - DHCP Lease Reservation

Use these fields to reserve a specific IP address for a deivce.



DHCP Lease Status

Shows the devices currently connected to your modem.



- 11. Enter the device information:
 - Client Host Name
 - MAC Address of the device from Step 8
 - IP address from Step 8
 - The "Select" Checkbox does NOT need to be selected.
 - Ensure the "Enabled" checkbox is selected.

DHCP Lease Reservation

Use these fields to reserve a specific IP address for a deivce.

Select	Host Name	MAC Address	IP Address	Enabled
	Rule Name	00:23:15:43:F7:24	192. 168. 15 . 62	
			ADD DEL	ETE

▼ DHCP Lease Status

Shows the devices currently connected to your modem.

Host Name	MAC Address	IP Address	Remaining Lease Duration	
WST41032153	00:23:15:43:F7:24	192.168.15.62		3026 seconds
		REFRI	ESH	Αυτο

- 12. Select UPnP and DMZ
 - The "Enable UPnP IGD" checkbox needs to be checked.
 - The DMZ IP Address field is left blank.

DNS Servers

▼ UPnP
Enable UPnP to allow Windows applications to dynamically configure Port Forwarding rules on the modem.
Enable UPnP IGD 📝
▼ DMZ
DMZ IP Address 192.168.15.

- Port Forwarding
- DHCP Server
- ▼ DHCP Lease Reservation

Use these fields to reserve a specific IP address for a deivce.

Select	Host Name	MAC Address	IP Address		Enabled
	Rule Name	00 23 15 43 F7 24	192, 168, 15, 24		V
		-	ADD	DELET	E

DHCP Lease Status

- 13. Select Port Forwarding
 - Select the "Add" Button five times so that five blank rows are now available.
- 14. Enter the Following information:

- 15. Line 1:
- Protocol
- Select "TCP" from the dropdown
 - WAN Port Begin
 - Enter the number "1"
 - WAN Port End
 - Enter the number "160"
 - LAN IP
 - Enter the IP address that was assigned in the lease reservation
- 16. Line 2:
- Protocol
- Select "TCP" from the dropdown
- WAN Port Begin
 - Enter the number "162"
 - WAN Port End
 - Enter the number "65535"
 - LAN IP
 - Enter the IP address that was assigned in the lease reservation
- 17. Line 3:
- Protocol
- Select "UDP" from the dropdown
 - WAN Port Begin
 - Enter the number "1"
 - WAN Port End
 - Enter the number "67"
 - LAN IP
 - Enter the IP address that was assigned in the lease reservation
- 18. Line 4:
- Protocol
- Select "UDP" from the dropdown
 - WAN Port Begin
 - Enter the number "69"
 - WAN Port End
 - Enter the number "160"
 - LAN IP
 - Enter the IP address that was assigned in the lease reservation.
- 19. Line 5:
- Protocol
- Select "UDP" from the dropdown
 - WAN Port Begin
 - Enter the number "162"
 - WAN Port End
 - Enter the number "65535"
 - LAN IP
 - Enter the IP address that was assigned in the lease reservation

Select	Protocol	WAN	I Port		Enable
Select	Protocol	Begin	End	LAN IP	Enable
	TCP 👻	1	160	192 . 168 . 15 . 62	
	TCP 👻	162	65535	192 . 168 . 15 . 62	
	UDP -	1	67	192 . 168 . 15 . 62	
	UDP -	69	160	192 . 168 . 15 . 62	
	UDP -	162	65535	192 . 168 . 15 . 62	
	CP Serve			ADD	DELETE

Host Name	MAC Address	IP Address	Remainin	g Lease Duration
WST41032153	00:23:15:43:F7:24	192.168.15.62		3026 seconds
		REFR	ESH	Αυτο

20. Scroll to the bottom of the interface and select "Apply".

DHCP Server

DHCP Lease Reservation

Use these fields to reserve a specific IP address for a deivce.

Select	Host Name	MAC Address	IP Address		Enabled
	Rule Name	00 : 23 : 15 : 43 : F7 : 24	192, 168, 15, 62		V
			ADD	DELET	E

▼ DHCP Lease Status

Shows the devices currently connected to your modem.



21. Reboot the Apollo by holding down the power button (located on the left side of the device) for approximately 5 seconds. Make sure to <u>NOT</u> factory reset the device (or all settings will be lost).

• The Apollo's screen will show "Powering Down"



- 22. After 30 seconds, turn the Apollo back on by pressing down on the power button for apporximately 5 seconds.
- A "CLEAR" logo should appear with a "Loading Bar" indicating that the device is powering back on.



The modem is now "wide open" and all ports are forwarded to the first NAT capable device hooked up after the modem.

Any further issues with port forwarding will need to be addressed with your 3rd party network equipment vendor, or 3rd party software vendor.